**CITY OF LINCOLN**

**GIS ANALYST I/II**

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

**DEFINITION:**

Under general supervision of the City Engineer, this new position will utilize specialized knowledge, skills and abilities to create an in-house GIS program that does not currently exist. This is a both an analytical and technical position. The specialist will be required to meet with users to define data needs and required outputs, conduct research to locate and obtain existing databases, compile geographic data from a variety of sources, gather and integrate spatial data, enter new map data and work closely with ESRI to design and continually update the geographic database to create a highly functional resources for the City.

**DISTINGUISHING CHARACTERISTICS:**

This is a single class with two salary levels that recognize the degree of complexity associated with the programs, systems, and project based assignments. The level at which initial appointments are made is at the discretion of the appointing authority.

**GIS Analyst I**

This is the entry level class within the GIS Analyst series. Under close supervision, incumbents perform a variety of analytical and technical operational duties specific to GIS needs assessments, locating existing databases, compiling geographic data, integrating spatial data, creating maps, and operating and maintaining GIS system hardware and software. As experience and knowledge are acquired, incumbents are expected to perform increasingly responsible and difficult assignments. At the discretion of the appointing authority, incumbents may advance to the higher level after demonstrating they can perform their work independently.

**GIS Analyst II**

This is journey/lead worker level class within the GIS Analyst series and the targeted competency and performance level expected of all GIS Analysts. Incumbents are technically proficient in performing their assigned duties at a high level of independence under minimal direction. Incumbents may train, assign, and monitor work of GIS Analysts (Level I) and other technical, clerical, and administrative personnel.

**SUPERVISION RECEIVED/EXERCISED:**

Incumbents receive direct or general supervision from the City Engineer, or other management level classification, and may receive technical and functional direction from professional City staff. Incumbents may directly supervise or provide direction to technical, clerical, and administrative personnel.

**ESSENTIAL FUNCTIONS:** *(include but are not limited to the following)*

- Conducts complex spatial/surface analysis using a variety of modules and GIS software; utilizes multiple databases and GIS software to perform spatial analysis for more difficult special projects working with a team of users, from the City and other organizations, involving a major policy area or concern.
- Maintains and enhances GIS data sets, according to evolving needs and resources including digitizing, editing, researching, creating, calculating, and editing of attributes and merging of data from different sources; adds new data and manipulates existing data in multiple work files; performs high-level manual and/or visual review of preliminary data and final products to ensure usability and accuracy of all data entering the system.
- Meets with users to define data needs, project requirements, project output, and/or develop applications; analyzes GIS needs of City departments and implements GIS programs, databases, and related products for City departments and outside agencies; prepares and coordinates project scopes, procedure flow-charts, and schedules with customers and programmers.
- Conducts Global Positioning Systems (GPS) surveying and data post-processing or GIS database development efforts.
- Creates and edits geospatial data, using GPS and digitizing techniques; creates and edits maps, integrating a range of data formats, and using state-of-the-art technology.
- Creates GIS software programming applications.
- Interfaces and serves as liaison with customers in the serving of special requests and operational issues; ensures that GIS products are delivered within a timeframe acceptable to the customer; coordinates advanced level support and expertise for more difficult GIS applications.
- Attends training meetings and upgrades knowledge of GIS systems; applies and documents new techniques as they are implemented.
- Evaluates operations and makes recommendations about the GIS program direction and procedure modifications; develops or assists in developing policies and procedures for GIS processes.
- Performs related duties as assigned.
- Establishes positive working relationships with representatives of community organizations, state/local agencies, City management and staff, and the public.

**PHYSICAL, MENTAL AND ENVIRONMENTAL WORKING CONDITIONS:**

**Physical Requirements:**
Incumbents must possess the mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; attend off-site meetings; hearing and speech to communicate in person, and over the telephone. This is primarily a sedentary office classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter and retrieve data using a computer keyboard, typewriter keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push and pull drawers open and closed to retrieve and file information. Positions in this classification occasionally lift and carry files, manuals, tools and equipment weighing up to 25 pounds for distances up to 50 feet.

**Working Conditions:**
Employees work partially in an office environment with moderate noise levels and controlled temperature conditions, and partially in the field and are occasionally exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives, and contractors in interpreting and enforcing departmental policies and procedures.

**QUALIFICATIONS:** *(The following are minimal qualifications necessary for entry into the classification.)*

**Education and/or Experience:**
Any combination of education and experience that has provided the knowledge, skills and abilities necessary for a **GIS ANALYST I/II**. A typical way of obtaining the required qualifications is to possess the equivalent of:

**GIS Analyst I**
A Bachelor's Degree from an accredited college or university in Geographic Information Systems, Geography, Cartography, Civil Engineering, Computer Science, Information Systems, or a related field

**AND**

One year of full time experience using AutoCAD, ERSI-based GIS software applications, databases and other relevant computer software, programs, and databases.

**GIS Analyst II**
A Bachelor's Degree from an accredited college or university in Geographic Information Systems, Geography, Cartography, Civil Engineering, Computer Science, Information Systems, or a related field

**AND**

Three (3) years of experience working in a GIS related field, including experience with a wide

variety of geographic information system applications.

**OR**

Two (2) years of experience performing duties similar to those of a Geographic Systems Analyst I with the City of Lincoln.

**License Requirements:**
A valid California Class C driver license or higher with a satisfactory driving record is required at the time of appointment. Individuals who do not meet this requirement due to a disability will be reviewed on a case-by-case basis.

**KNOWLEDGE/ABILITIES/SKILLS:**

**Knowledge of:**
- ESRI-based GIS software and its applications, and related programming languages.
- Principles and practices of GIS, cartography, map projections and scales.
- Relational database management systems and principles.
- Data maintenance and conversion techniques.
- Complex GIS analysis techniques.
- Highly complex information technology issues.
- Principles and techniques of software and systems quality assurance and control.
- Principles and practices of technical problem solving.
- Team dynamics.
- Principles, practices and techniques of providing customer service.
- Principles and practices of producing effective project and technical documentation.
- Practices of effective communication of technical issues to user and client community.
- Pertinent local, County, State and Federal statues, laws, ordinances and rules as they apply mapping requirements.

**GIS Analyst II, in addition to above:**
- Methods of advanced research, analysis, and management related to GIS system applications and databases
- Principles and practices of project management and workflow analysis.
- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.

**Ability to:**
- Perform complex analytical tabular and spatial queries.
- Integrate complex disparate spatial and tabular databases.
- Maintain GIS standards.
- Plan, organize, coordinate, and prioritize work.
- Effectively communicate both orally and in writing.
- Outline and systematically solve complex requests.
- Work independently and in a team environment.
- Effectively manage multiple projects and priorities.
- Integrate information technology systems.
- Recognize problems and develop recommendations and solutions.

- Promote and maintain a team environment.
- Work effectively with clients, users and senior managers.

**Skill to:**

Operate an office computer and a variety of word processing and software applications. Safely and effectively operate a variety of power and hand tools used in Construction Inspection.